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**UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW JERSEY**

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GLOBESPANVIRATA, INC. )  
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Plaintiff, )  
)  
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v. )  
)  
)

TEXAS INSTRUMENTS, INC., THE )  
LELAND STANFORD JUNIOR )  
UNIVERSITY and its BOARD OF )  
TRUSTEES, and STANFORD )  
UNIVERSITY OTL, LLC )  
)  
)

Defendants. )  
)  
\_\_\_\_\_

Civil Action No. \_\_\_\_\_

**COMPLAINT**

GlobespanVirata, Inc. ("Globespan"), located at 100 Schulz Drive in Red Bank, New Jersey, for its Complaint against Texas Instruments, Inc. ("TI"), located at 12,500 TI Boulevard in Dallas, Texas; The Leland Stanford Junior University and its Board of Trustees ("Stanford"), located at Building 10, Main Quad, Stanford, California; and Stanford University OTL, LLC ("OTL"), located at Building 170, 3rd Floor, Main Quad, Stanford, California, based on knowledge with respect to its own actions and on information and belief with respect to the actions of others, avers as follows:

## NATURE OF ACTION

1. Globespan brings this action for declaratory judgment, preliminary and permanent injunction, and damages under the antitrust and patent laws of the United States and the laws of the State of New Jersey.

2. TI and Stanford allegedly own numerous patents related to Asymmetric Digital Subscriber Line ("ADSL") technology, which enables high-speed telecommunication services to be provided over ordinary telephone lines. Only a few of these many patents are necessary to manufacture products that comply with certain national and international ADSL standards, despite defendants' claim that they all are essential to those standards. As a practical matter, today, only standards-compliant ADSL products are commercially viable.

3. TI and Stanford are engaged in a longstanding and ongoing conspiracy to create an unlawful patent pool. Under this conspiracy, defendants entered into an agreement to refuse to license their ADSL-related patents except as a block that included the TI and Stanford ADSL patents bundled together. The intended purpose and result of this conspiracy has been to force potential licensees to pay for a substantial number of non-essential or unwanted ADSL patents in order to gain access to the few patents that, if enforceable and valid, are actually essential to manufacture standards-compliant ADSL products.

4. To carry out this unlawful conspiracy, defendants have knowingly misled the telecommunications industry by falsely and repeatedly claiming that all TI and Stanford ADSL-related patents are "essential" to manufacture standards-compliant ADSL products. These false claims, made to coerce potential licensees to accept a license to the unlawful patent pool, have adversely affected competition in the market for standards-compliant ADSL products, among other markets.

5. In furtherance of this unlawful conspiracy in restraint of trade, defendants have also breached various agreements in which they promised to license patents essential to comply with industry-wide ADSL standards on reasonable and demonstrably non-discriminatory terms. To Globespan's detriment, defendants have repeatedly breached that commitment by refusing to license separately the few patents essential to manufacture standards-compliant ADSL products on reasonable terms, free of discrimination.

6. Defendants' unlawful conduct has prevented Globespan from gaining access to the few ADSL patents it wants to license because Globespan refuses to accept the coercive requirement of licensing the numerous other patents in the pool that it neither wants nor needs. In response, defendants have repeatedly threatened Globespan with "worldwide litigation" for its refusal to license the entire patent pool. Purchasers of standards-compliant ADSL products, from Globespan or other producers that have not obtained a license to defendants' unlawful patent pool, similarly are threatened by the possibility of patent infringement actions.

7. In addition to defendants' unlawful licensing practices, TI and Stanford also acted deceptively and anticompetitively, individually and in concert, during the ADSL standards-setting process by: (a) manipulating the standards so they are covered by claims in their patents and patent applications and (b) manipulating their patent application claims to cover the standards as they were being set. All of the TI and Stanford patents are unenforceable, due to patent misuse and defendants' inequitable conduct before the U.S. Patent and Trademark Office ("PTO").

8. As a result, in addition to the damages caused by defendants' unlawful conduct, Globespan is entitled to a declaratory judgment by this Court that each of the ADSL-related patents held by defendants is invalid, unenforceable or not infringed by Globespan.

### PARTIES

9. Plaintiff Globespan is a corporation organized under the laws of the State of Delaware, with its principal place of business in Red Bank, New Jersey. Globespan is a global provider of integrated circuits, software, and system designs for Digital Subscriber Line ("DSL") applications. Among other things, Globespan sells complete high-speed, cost-effective, flexible DSL chipsets (including those for ADSL applications) to customers that manufacture broadband telecommunications equipment for both businesses and consumers.

10. Defendant TI is a corporation organized under the laws of the State of Delaware with its principal place of business in Dallas, Texas. TI is a direct competitor of Globespan in the market for ADSL chipsets, ADSL design solutions and the development of technologies for ADSL applications.

11. TI owns and is the successor corporation to the business and assets of Amati Communications Corporation ("Amati"), the original assignee of some of the patents at issue in this case. Amati was founded by Stanford professor John Cioffi in 1991 and was acquired in February 1998 by TI, at which time Amati became a wholly owned subsidiary of TI. Amati remained a TI subsidiary until 2001, when Amati ceased to exist as a separate corporate entity. Prior to TI's acquisition, Amati was a direct competitor of Globespan, and its predecessors in interest, in the development of ADSL technology.

12. As the successor corporation, TI assumed all of Amati's liabilities and is legally responsible for the actions and statements attributable to Amati before the acquisition.

As used in this Complaint, therefore, TI and Texas Instruments mean TI or Amati or both, and Amati means TI, as the context requires.

13. Defendant Stanford is a non-stock corporation organized under the laws of the State of California with its principal place of business in Stanford, California. Through its research, development, and commercial licensing activities, Stanford is also a competitor of Globespan in the development of technologies for ADSL applications.

14. Defendant OTL is a limited liability corporation organized under the laws of the State of Delaware with its principal place of business in Stanford, California. Upon information and belief, OTL was formed by Stanford in or about October 2002 for the purpose of taking over the commercial licensing activities previously conducted by Stanford through its internal Office of Technology Licensing.

15. For ease of reference, defendants Stanford and OTL are referred to herein jointly or separately in this Complaint as "Stanford."

#### **PATENTS-IN-SUIT**

16. TI alleges that it owns the following United States patents that are now or at some point were claimed by defendants to be essential to the industry standards for ADSL technology (collectively, the "TI Patents"):

No. 5,400,322 (the '322 Patent, attached as Exh. A);  
No. 5,519,731 (the '731 Patent, attached as Exh. B);  
No. 5,596,604 (the '604 Patent, attached as Exh. C);  
No. 5,623,513 (the '513 Patent, attached as Exh. D);  
No. 5,627,863 (the '863 Patent, attached as Exh. E);  
No. 5,673,290 (the '290 Patent, attached as Exh. F);  
No. 5,680,394 (the '394 Patent, attached as Exh. G);  
No. 5,754,592 (the '592 Patent, attached as Exh. H);  
No. 5,764,649 (the '649 Patent, attached as Exh. I);  
No. 5,838,667 (the '667 Patent, attached as Exh. J);  
No. 5,901,180 (the '180 Patent, attached as Exh. K);  
No. 6,009,122 (the '122 Patent, attached as Exh. L);

No. 6,128,349 (the '349 Patent, attached as Exh. M);  
No. 6,269,154 (the '154 Patent, attached as Exh. N);  
No. 6,359,933 (the '933 Patent, attached as Exh. O); and  
No. 6,408,033 (the '033 Patent, attached as Exh. P).

TI also claims to own foreign patents that correspond to some of the TI Patents that it has claimed are essential to international standards for ADSL technology (the "TI Foreign Patents").

17. Stanford, through its Board of Trustees, alleges that it owns the following United States patents that are now or at some point were claimed by defendants to be essential to the industry standards for ADSL technology (collectively, the "Stanford Patents"):

No. 5,479,447 (the '447 Patent, attached as Exh. Q);  
No. 5,317,596 (the '596 Patent, attached as Exh. R);  
No. 5,285,474 (the '474 Patent, attached as Exh. S); and  
No. 5,220,570 (the '570 Patent, attached as Exh. T).

#### **JURISDICTION AND VENUE**

18. This action arises under the laws of the United States and specifically Titles 15 and 35 of the United States Code. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1332, 1337(a), 1338 and 1367. Furthermore, because an actual controversy exists between Globespan, TI and Stanford with respect to the validity, infringement and enforceability of the TI Patents and the Stanford Patents, this Court may grant declaratory relief pursuant to 28 U.S.C. §§ 2201 and 2202.

19. Globespan resides in this District, and a substantial part of the events or omissions giving rise to the complaint occurred in this District. TI and Stanford are found or transact business in this District and are subject to personal jurisdiction in this District. As such, venue is proper in this Court pursuant to 28 U.S.C. § 1391 and 15 U.S.C. § 22.

20. Defendants' business activities complained of herein are in and affect interstate and foreign commerce.

## FACTS

### ADSL TECHNOLOGY

21. DSL technology and associated applications, such as ADSL, enable the simultaneous high-speed transmission of data, voice, and video over ordinary telephone lines. As a result, a DSL customer can use a single ordinary telephone line simultaneously for high-speed access to the Internet and for making and receiving telephone calls. Currently, there are over 35 million subscribers of DSL service worldwide.

22. DSL transmissions can be either symmetric or asymmetric. Symmetric DSL provides the same bandwidth (capacity) both to and from the subscriber and the telephone network. With asymmetric DSL -- known as "ADSL" -- the transmission capacity is much greater in the "downstream" direction, from the telephone network to the subscriber, than in the "upstream" direction, from the subscriber to the telephone network. ADSL is currently the most common type of DSL in use worldwide for the provision of broadband internet access via telephone lines.

23. ADSL service is typically offered to consumers, both residential and business, by local telephone companies for a monthly fee. To receive ADSL service, a subscriber's telephone line must have an ADSL modem on each end of the line. The modem installed at the subscriber's location is often referred to as "customer premises equipment" ("CPE"). The corresponding modem at the telephone company's end of the line is often referred to as "central office" ("CO") equipment. Because of space constraints in telephone company COs a number of CO ADSL-modems are typically packaged into a single piece of equipment that provides ADSL connections (known as "ports") for many users.

24. A central component of an ADSL modem is an ADSL chipset, which comprises a digital signal processor ("DSP") and associated circuitry operating according to

software instructions. ADSL chipsets receive digital signals from a personal computer or Internet service provider, for example, and configure and encode those digital signals for transmission over voice-grade (analog) telephone lines between the CO and the CPE. ADSL chipsets also receive signals transmitted over voice-grade lines and decode and reconfigure those analog signals into digital signals for transmission to an Internet service provider or a personal computer.

### **ADSL STANDARDS**

25. In the early 1990's, standards-setting organizations within the telecommunications industry began the process of developing common standards for ADSL technology. The voluntary development of standards is designed to enable standards-compliant telecommunications equipment (*e.g.*, a CO ADSL modem) made by one manufacturer to communicate with standards-compliant telecommunications equipment (*e.g.*, a CPE ADSL modem) made by a different manufacturer. By advancing the goal of interoperability among telecommunications equipment, voluntary industry standards can serve important functions in promoting competition and consumer welfare.

26. Industry standards-setting organizations normally work by soliciting technical contributions from a wide range of experienced parties, with the understanding that the contributors will give up a degree of control over their patents in exchange for the possibility that their ideas or technology will be incorporated into the standard. In this process, numerous contributions from different companies are often reshaped and combined into a finished written text of the standard, sometimes referred to as a "specification" (in the United States) or a "recommendation" (in foreign countries). Companies implementing the standard usually remain free to advance beyond the minimum requirements described in the specification, allowing them



to innovate and add additional features that differentiate their products from those of competitors.

27. The standards involved in this case relate to the technical requirements for the transmission of ADSL signals over the telephone wires that connect the CO with the CPE.

28. These ADSL standards establish a full range of technical parameters for the signals to be sent from a transmitter to receiver, so that a receiver can properly receive the transmitted signals and extract the information that the sender has delivered to the transmitter.

29. The American National Standards Institute ("ANSI") is a non-profit organization that administers and coordinates voluntary standardization and conformity assessment systems in the United States. ANSI accredits industry organizations to develop the actual standards, which in turn are considered and, if accepted, adopted by ANSI.

30. Committee T1 is an ANSI-accredited organization sponsored by the Alliance for Telecommunications Industry Solutions ("ATIS"). Committee T1 created the technical specifications for the ADSL standard in the United States. The actual development work by Committee T1 took place within the T1E1 Technical Subcommittee and, specifically, in the T1E1.4 Working Group, which focuses on DSL technology.

31. In or about May 1995, Committee T1 completed its work on the first version of the ADSL standard, known as the T1.413-1995 standard. The new standard was then forwarded to ANSI, which approved and published the T1.413-1995 standard in or about August 18, 1995.

32. Immediately after ANSI approved the first ADSL standard, Committee T1 began work on a revised, second version of the standard ("Issue 2"). In or about September 1998, Committee T1 approved Issue 2, known as the T1.413-1998 standard. ANSI approved and

published the new standard in or about November 1998. Committee T1 decided that no other revisions of the standard would be undertaken.

33. In or about July 1999, the International Telecommunications Union ("ITU"), which is the international standards body that promulgates telecommunications standards under the auspices of the United Nations, adopted an ADSL standard. The basic ITU ADSL standard is known as Recommendation G.992.1, and in many respects is almost identical to the ANSI T1.413-1998 standard. Upon information and belief, the ITU relied extensively on the work performed by Committee T1 and ANSI in adopting Recommendation G.992.1.

34. ITU Recommendation G.992.1 also includes annexes specifying variations of the basic ADSL standard for implementation in different countries. For example, Annex C of ITU Recommendation G.992.1 has been adopted for ADSL systems in Japan.

35. The standards involved in this case include at least all versions of the ANSI standard T1.413 and ITU Recommendation G.992.1 (collectively, "the ADSL Standards").

### **DEFENDANTS' UNLAWFUL PATENT POOL**

#### ***The Agreements in Restraint of Trade***

36. Defendants have knowingly conspired and agreed to pool together their ADSL-related patents and have refused to license their ADSL patents individually on reasonable terms. The intent and result of this agreement in restraint of trade is to force potential licensees to pay for unnecessary or unwanted patents -- from both TI and Stanford -- in order to gain access to the few patents necessary for the manufacture of products that comply with the ADSL Standards.

37. As part of this conspiracy, TI acted on behalf of and with the knowledge and consent of Stanford.

38. The agreements that form the basis of this conspiracy are reflected, in part, in certain written agreements between defendants. Upon information and belief, at least some of these written agreements guaranteed Stanford a minimum or set per-port royalty for any ADSL Standards-compliant product that was licensed by TI, regardless of whether an invention embodied in the Stanford patents was used in the licensed product.

39. Upon information and belief, these agreements precluded TI during licensing negotiations with potential licensees from separating out the Stanford Patents from the TI Patents for licensing purposes. Moreover, these agreements also prohibited TI from offering licenses to its own patents individually.

40. As a result of these agreements, TI had no financial incentive during licensing negotiations to remove the Stanford Patents from the patent pool or to license its own patents individually because it would still have to pay Stanford a "set" amount for every ADSL product licensed, even if that licensed product needed only a single TI Patent and no Stanford Patents were necessary for compliance with the ADSL Standards. The effect and purpose was to force the licensing of the Stanford Patents as a condition of licensing any TI Patents.

41. Upon information and belief, as a result of the agreements reached between defendants, TI decided -- with Stanford's knowledge and consent -- that if it were forced to offer a license to individual patents, it would only offer prices and terms that were at least as expensive as a license to the entire patent pool. That approach was designed to ensure that the licensee would ultimately elect to license the entire pool instead of individual patents, and TI would also be protected from a financial setback as a result of the "set" payment due to Stanford for every licensed product.

***Defendants' False Assertions of "Essentiality"***

42. In furtherance of their conspiracy to force potential licensees into taking a license to the entire patent pool, and to discourage attempts by potential licensees to request individual licenses for the applicable products, defendants have knowingly misled the telecommunications industry by falsely claiming that all patents in their pool are "essential" for compliance with the ADSL Standards.

43. Defendants' assertions that all patents in their pool are "essential" are false because only a few of the TI Patents, even if enforceable and valid, are necessary or essential to manufacture products that comply with the ADSL Standards. None of the Stanford Patents is necessary or essential to manufacture products that comply with the ADSL Standards.

44. Defendants' definition of "essential" patents, as well as the list of patents that are allegedly essential, has shifted throughout the licensing negotiations with Globespan. This reflects the fact that defendants are manipulating their list of supposedly "essential" patents for anticompetitive purposes.

45. In July 1998, for example, in a so-called "Standard License Agreement," defendants defined as "essential" a total of six patents: the '322, '604 and '863 TI Patents, and the '596, '447 and '474 Stanford Patents. Contrary to defendants' claims, none of the Stanford patents and not all of these TI Patents are in fact essential to manufacture products that comply with the ADSL Standards.

46. The initial list of patents offered by defendants to Globespan in July 1998 as "essential," for example, was different from the list of patents previously disclosed by defendants to ANSI in 1996 as allegedly essential to the ADSL standard, which included the '322, '604, '513, '863, '592 and '649 TI patents and the '596, '447, and '474 Stanford patents.

47. During late 2002, defendants expanded the list of "essential" patents, which they now referred to as "Example Essential Patents," and attempted to force potential licensees to take a so-called "portfolio" license to the entire unlawful patent pool. Defendants' false definition of the term "essential" improperly and misleadingly gives the impression that, absent a license, any product that complies with the ADSL Standards will infringe all of the TI and Stanford Patents.

48. Defendants' list of "Example Essential Patents" expanded in late 2002 to include the '322, '604, '154, '863, '180, '933, '122, '349 and '033 TI Patents and the '474, '596 and '447 Stanford Patents, for a total of 12 United States patents -- twice as many patents as were originally claimed to be "essential" by defendants in the first licensing demand made to Globespan. In addition, the list included 15 additional TI Foreign Patents, for a total of 27 patents being specifically identified by defendants as "essential" to the ADSL Standards. → Notice  
Issue

49. In 2003, defendants have also asserted that the '667, '394, '290, and '731 TI patents are "essential," even though these four patents all issued between 1996 and 1998. Defendants no longer claimed, as they had previously, that the '863, '596, '474, and '154 patents were essential.

50. As of the filing of this Complaint, defendants therefore have falsely asserted at various times that a total of 20 United States patents (16 TI Patents and 4 Stanford Patents), as well as an additional 15 TI Foreign Patents, are "essential" to manufacture products that comply with the ADSL Standards.

51. Defendants used the assertion that their patents were "essential" in an effort to coerce potential licensees such as Globespan into taking licenses to the entire unlawful patent pool.

52. Defendants' false, constantly changing, and inflated claims of "essential" patents have had adverse competitive effects. For example, Globespan has been unable to gain access to the few patents in which it has been interested because Globespan has refused to license patents that it does not want or need. Moreover, Globespan has been threatened by defendants with worldwide litigation if it does not take a license to all patents, and, on information and belief, some of its customers or potential customers have been told of potential licensing "issues" with Globespan, which has raised concerns about infringement actions against Globespan's customers. Among other things, these actions interfere with competition by harming the business of Globespan and other competitors.

53. Within the past few months, TI has acknowledged that only "some but not all" of the TI and Stanford Patents are in fact essential for compliance with the ADSL Standards, despite having claimed for years that a much broader list of TI and Stanford Patents was "essential."

**DEFENDANTS' FAILURE TO LICENSE NECESSARY ADSL TECHNOLOGY ON  
REASONABLE AND DEMONSTRABLY NON-DISCRIMINATORY TERMS**

54. During the ADSL Standards-setting process, defendants repeatedly promised -- in order to have their proposals considered for inclusion in the ADSL standard -- to license necessary TI or Stanford Patents on reasonable terms and conditions that are demonstrably free of any unfair discrimination ("RAND Terms"). Globespan has reasonably relied on these promises, which have been repeatedly broken, to its detriment.

55. As an ANSI-accredited body, Committee T1 adopted the ANSI Patent Policy ("Patent Policy") to govern its proceedings. The Patent Policy in effect during the relevant period, from 1993 until 1997, stated that it was permissible to draft a proposed standard

in terms that would include the use of a patented technology *if, and only if*, technical reasons justified that approach. Members were strongly encouraged to disclose relevant patents at an early stage in the standards development process.

56. ANSI's Patent Policy also required that the holder of a patent that is allegedly necessary for a standard submit, before the approval of the standard, a written assurance that either: (a) a royalty-free license to the technology will be made available, or (b) a license will be made available to applicants under "reasonable terms and conditions that are demonstrably free of any unfair discrimination." The Patent Policy further required that the "terms and conditions of any license shall be submitted to ANSI for review by its counsel, together with a statement of the number of independent licensees, if any, which have accepted or indicated their acceptance of terms and conditions of the license."

57. The ITU also has an explicit patent policy. Under that ITU policy, to ensure that "Recommendations, their applications, use, etc. are accessible to everybody . . . commercial (monopolistic) abuse by a holder of a patent embodied fully or partly in a Recommendation must be excluded." As a result, "any ITU-T member organization putting forward a standardization proposal should, from the outset, draw the attention of the Director of the TSB [Telecommunications Standardization Bureau] to any known patent or to any known pending patent application, either their own or of other organizations ...." Upon information and belief, this was the same policy in effect at the time that the ITU considered adopting the ADSL standard.

58. Amati first promised to provide licenses on RAND Terms in a submission made jointly with the company then known as Northern Telecom, Ltd. (now known as Nortel

Networks) to the T1E1.4 Working Group in or about March 1993, which urged the adoption of Discrete Multi-Tone (DMT) code as the ADSL standard. The submission provided, in part:

Northern Telecom and Amati Communications hereby declare that, should Discrete Multi-Tone (DMT) be accepted as a standard for ADSL, they will each (a) sign the T1E1 letter regarding technology licensing, and (b) make licenses for applicable DMT patents held by or licensed by each available to any other company on a reasonable and equitable basis.

59. Later in 1993, Amati made yet another submission to the working group to reassure the members of its commitment to RAND Terms. That submission stated, in part:

Amati has previously agreed to enter into reasonable and equitable licensing agreements with interested parties regarding the Amati and Stanford University patents, issued, pending, or anticipated that are necessary for conformance to the pending T1E1.4 ADSL standard (93-063). Amati has an exclusive license and right to sublicense Stanford's [sic] ADSL patents.

Amati is prepared to negotiate such a license agreement in good faith in an expeditious manner with interested parties.

60. On information and belief, TI has agreed to ADSL licenses with certain other companies, such as Nortel Networks and Motorola, Inc., on terms that are far more favorable than those offered to Globespan by including, among other things, royalty-free cross-licenses, most-favored-licensee clauses, and lower or zero per-port minimums. These more favorable license terms, which have never been offered to Globespan, violate the agreements undertaken by defendants as part of the standards-setting process.

61. Neither Amati nor Stanford ever disclosed to Committee T1 or ANSI any specific patent or pending patent application that could be implicated by the specifications being considered by the Working Group until after ANSI adopted standard T1.413-1995.

62. Not until in or about June 1996 did Amati and Stanford jointly submit to ANSI nine "Statements of Patent Holder," which were signed by John Cioffi. These statements served as a disclosure notice of issued patents and pending patent applications that were



allegedly essential to practice the new ADSL standard adopted by ANSI. These disclosures included the following United States Patents (or applications that matured into patents):

<u>U.S. Patent No.</u>	<u>Owner</u>
5,285,474	Stanford
5,317,596	Stanford
5,479,447	Stanford
5,400,322	Amati
5,596,604	Amati
5,623,513	Amati
5,627,863	Amati
5,754,592	Amati
5,764,649	Amati

63. Amati and Stanford did not disclose at that time a number of other TI and Stanford patents and patent applications that defendants have later asserted as essential to the ADSL Standards. These selective non-disclosures had the purpose and effect of giving a false impression as to the extent of defendants' patented ADSL-related technology. The following patents or applications had already been filed or issued when the ANSI "Statement of Patent Holder" disclosures were made in June 1996, yet were not disclosed by defendants at that time:

<u>Patent</u>	<u>Owner</u>
5,220,570	Stanford
5,519,731	Amati
5,673,290	Amati
5,680,394	Amati

64. According to the "Statements of Patent Holder" disclosures made in June 1996, each of the disclosed patents or patent applications had been licensed to at least two other parties. In response to the directive on the form, "Please attached a copy of license agreement, if any," Amati responded, "(confidential)" and apparently refused to provide copies of the requested license agreements, contrary to ANSI's Patent Policy.

65. Upon information and belief, no other patent disclosures were made by defendants to ANSI regarding the T1.413 Standards.

66. In or about May 1998, TI and Stanford also sent a joint letter to the ITU in which they promised to license any intellectual property necessary to practice any ITU ADSL standard on reasonable and non-discriminatory terms, in compliance with ITU's patent policy. In their letter to ITU, TI and Stanford listed four Stanford Patents (the '570, '596, '447, and '474 patents) as being relevant to the standard, but did not identify any of the TI Patents. Despite stating that they are "aware of and support the ITU policy regarding licensing of intellectual property rights that are necessary to practice ITU standards," on information and belief, TI and Stanford have never identified any TI Patents to the ITU in connection with the ADSL Standards.

67. Defendants' disclosures to the standards-setting bodies misrepresented which patents or patent applications were necessary or essential to practice the ADSL Standards. For instance, Amati's October 16, 1995, filing with the Securities and Exchange Commission ("SEC") -- made *after* the adoption of ANSI standard T1.413-1995 -- directly contradicts defendants' subsequent disclosure to ANSI in June 1996, as well as the disclosures made by Stanford and TI to the ITU in May 1998. Amati's filing with the SEC described the classification of the TI and Stanford patents and related pending patent applications as follows:

- "Group 1 -- Consists of 3 patent applications and 1 patent co-owned with Northern Telecom *that are necessary for conformance to the ANSI standard* for ADSL. Amati has informally agreed with the ANSI standards body to license these patents to third parties on fair and equitable terms.

Group 2 -- Consists of the 2 patents issued to Stanford University in 1993 and 1994 and 1 patent application filed by Stanford University, all of which have been exclusively licensed to Amati, and 1 patent application filed by Amati in 1995. *These patents are not necessary for conformance*

*to the ANSI standard for ADSL; however, they make ADSL transceivers more efficient.*

- Group 3 -- Consists of 1 patent owned by Amati and 5 patent applications filed by Amati, all of which are more general to Amati's DMT technology." (Emphasis added).

68. With this SEC filing -- made after ANSI standard T1.413-1995 had already been issued -- Amati represented to the U.S. Government and the general public that defendants had only three pending patent applications and one issued patent that were necessary for compliance with the ANSI standard. None of the Stanford Patents was included in the list of patents or patent applications that were allegedly necessary to the ANSI standard.

#### **DEFENDANTS' MANIPULATION OF THE STANDARDS**

69. Defendants' wrongful failure to identify during the ANSI standard-setting process their ADSL-related patents and pending patent applications -- or their ulterior motives for insisting on standards provisions that would require standards-compliant products to infringe their patents -- allowed them to manipulate for their own benefit the specifications that were ultimately included in the ADSL Standards.

70. Within the Committee T1 Working Group, two main technologies emerged as the possible source of the line code to be used for the ADSL standard: Carrier-less Amplitude/Phase modulation technology ("CAP") and Discrete Multi-Tone Technology ("DMT"). These two technologies are not interoperable; a CAP-based device cannot communicate with a DMT-based device, and vice-versa.

71. Amati founder and Stanford professor John M. Cioffi, along with Northern Telecom, were the leading advocates of using DMT technology for ADSL implementation. Amati and Stanford supported the adoption of DMT technology as the basis for the standard

because Cioffi had been involved extensively with this technology as a result of his work for Stanford, which was funded in part by Bellcore, the research entity funded by the Regional Bell Operating Companies. Globespan's predecessor, AT&T Paradyne, a small division of AT&T, was the main supporter of CAP technology, which had been developed by a small group of engineers from the microelectronics division of AT&T.

72. As a result, in part, of Amati's promises that it would license any necessary Amati or Stanford patents on RAND Terms, the T1E1.4 Working Group ultimately selected DMT technology in or about March 1993 as the basis for developing the ANSI standard.

73. Upon information and belief, defendants subsequently submitted various technical contributions to the T1E1.4 Working Group directed at ensuring that the ADSL standards to be adopted would be covered by their patents.

74. Upon information and belief, defendants also adjusted and conformed certain patent applications -- based on specific information learned or discussed during T1E1.4 Working Group meetings more than one year before filing those applications -- in an attempt to obtain patents that would be infringed by products that complied with the ADSL Standards. On information and belief, defendants then failed to inform the PTO of the prior art information disclosed at the T1E1.4 Working Group meetings.

75. Finally, after the 1995 adoption of the ANSI T1.413-1995 standard, the T1E1.4 Working Group considered whether CAP technology would be adopted as an optional alternative in Issue 2 of the standard. Defendants strenuously opposed this proposal. Contributions submitted by Amati and others made clear that companies developing DMT solutions had been unable to deliver DMT-based products to the market and were threatened by the possibility that CAP technology -- which in contrast was being delivered to the marketplace

by Globespan (or its predecessors in interest) -- might be specified as an alternative ADSL standard. Upon information and belief, defendants recruited several other companies -- through very favorable licensing deals -- to engage in a joint campaign that ultimately succeeded in blocking all attempts by Globespan and others within Committee T1 to adopt an alternative CAP-based specification as part of the Issue 2 ANSI standard revision.

76. Defendants' actions in manipulating the standards-setting and patenting processes caused the end of the demand and the market for CAP-based ADSL products. Until at least the end of 1998, CAP-based ADSL products represented close to 100% of worldwide sales of ADSL products. Beginning in 1999, after adoption of the Issue 2 ADSL Standard, the market share of DMT products grew rapidly -- at the expense of CAP-based products and Globespan. Currently, there is no substantial demand for ADSL products that do not comply with the (DMT-based) ADSL Standards. As a result, CAP technology has been effectively eliminated as a competitive alternative to DMT-based ADSL products, and Globespan was forced to alter its fundamental business direction in 1998 to develop DMT-based ADSL products.

77. Globespan and other competitors now encounter defendants' unreasonable and discriminatory licensing practices -- with coercion made possible because of, among other things, defendants' manipulation of the standards-setting process described above.

### **RELEVANT MARKETS**

78. The anticompetitive acts engaged in by defendants have harmed competition in a number of relevant markets related to the development, design and sale of equipment required to provide ADSL service.

79. Companies that supply ADSL chipsets also sell design and consultation services that provide a detailed roadmap of instructions for the manufacture of ADSL modems.

that use the supplier's chipsets. This roadmap, often called a "reference design," effectively dictates the use of chipsets offered for sale by the seller of the reference design. The decisive competitive event in the sale of ADSL chipsets is the customer's decision as to which reference design to purchase from competing suppliers such as Globespan and TI, since that decision determines which competitor's chipsets the customer will purchase during the substantial period that the reference design is used to produce ADSL modems.

80. The development, design and sale of Standards-compliant ADSL Systems, comprised of Standards-compliant ADSL chipsets and reference designs for ADSL modems utilizing such chipsets, encompasses a number of distinct relevant technology, innovation and product markets in which defendants' predatory and exclusionary conduct has harmed competition and injured Globespan in its business and property. The relevant geographic area for all these markets is worldwide.

#### ***Relevant Technology Markets***

81. ADSL subscribers and companies that offer ADSL service to those subscribers demand CPE ADSL modems that will be interoperable with CO ADSL modems produced by the same or other manufacturers. For interoperability, ADSL modems must incorporate suitable technology to achieve this objective, which in practical commercial terms means the technology essential for compliance with the ADSL Standards adopted by ANSI and the ITU as described above. A relevant technology market exists for the technology necessary to comply with these ADSL Standards. At the present time, and for some years past, there is and has been no market for ADSL Systems that do not comply with these ADSL Standards, and accordingly there are no commercial substitutes available for ADSL Standards-compliant technology.

82. The relevant technology market for ADSL Standards-compliant technology encompasses the technology necessary to comply with the ADSL Standards, including the technology claimed in certain of defendants' patents that is essential for such compliance, as well as any other technology essential for Standards compliance that is not claimed in those patents.

83. There is also a relevant technology market for defendants' patented ADSL Standards-compliant technology. Because of the patent laws, and because of defendants' manipulation of the standards-setting process, there are no competitive substitutes available for consumers who wish to offer Standards-compliant ADSL Systems.

84. A separate relevant technology market also exists for features of ADSL Systems that are not essential for compliance with the ADSL standards but provide functions and capabilities that enhance the efficiency, value, attractiveness or operability of such systems. The market for ADSL non-Standards technology is separate and distinct from the market for ADSL Standards-compliant technology.

85. A broader relevant market for ADSL technology as a whole also exists, which includes both the market for ADSL Standards-compliant technology and the market for ADSL non-Standards technology.

#### ***Relevant Innovation Market***

86. A relevant innovation market for ADSL technology exists for research and development efforts related to ADSL Systems, which enhance their efficiency, value, attractiveness or operability in ways that do not depend on compliance with ADSL Standards, or by revision, supplementation or replacement of the existing Standards.

### ***Relevant Product Market for ADSL Systems***

87. ADSL Systems, comprised of Standards-compliant ADSL chipsets and reference designs for ADSL modems utilizing such chipsets, are developed and offered for sale by a number of competitors, including Globespan and TI, which market their designs and associated chipsets to companies that produce both CPE and CO ADSL modems. A relevant product market exists for such ADSL Systems.

### **ANTICOMPETITIVE EFFECTS OF DEFENDANTS' CONDUCT**

88. The foregoing conduct by defendants has materially caused or threatened to cause substantial harm to competition in the relevant markets and, in the future, will materially cause or threaten to cause further substantial injury to competition and consumers in those markets, absent the issuance of appropriate relief in the manner set forth below.

89. The purposes and effects of defendants' anticompetitive conduct have included, but are not limited to, the following:

- a) increases in royalties (or other costs) associated with the development, sale or use of ADSL technology and ADSL Systems;
- b) increases in the price, and reductions in the output and quality of ADSL Systems and ADSL non-Standards technology; and
- c) decreases in innovation related to ADSL technology.

### **CLAIMS FOR RELIEF**

#### **COUNT I**

#### **Unlawful Conspiracy in Restraint of Trade in Violation of Sherman Act § 1**

90. Plaintiff incorporates by reference paragraphs 1 through 89 above.



91. As a result of defendants' conspiracy and acts in furtherance of their unlawful agreements, Globespan has suffered and will continue to suffer injury to its business and property.

92. The purposes and effects of defendants' conspiracy and the overt acts each defendant has committed in furtherance of the conspiracy have included, but are not limited to, the following:

- a) increases in royalties (or other costs) associated with the development, sale, or use of ADSL technology and ADSL Systems;
- b) increases in the price, and reductions in the output and quality of ADSL Systems and ADSL non-Standards technology; and
- c) decreases in innovation related to ADSL technology.

93. Defendants' conspiracy and overt acts in furtherance of their unlawful agreements have included, for example: patent pooling; patent tying; unreasonable licensing terms; and manipulation of the ADSL Standards.

a. Unlawful Patent Pooling

94. Stanford and TI have agreed that TI will not license its patents separately from patents allegedly owned by Stanford. These agreements have created an unlawful patent pooling arrangement that constitutes a *per se* violation of Sherman Act § 1, or in the alternative constitutes an unreasonable restraint of trade in violation of the statute because any procompetitive benefit of such agreements is outweighed by the anticompetitive effects of the agreements in each and all of the relevant markets.

95. The patents pooled by TI and Stanford are not blocking patents, and there is no procompetitive justification for offering them solely as part of a package, or restricting either TI's or Stanford's right to license their patents on an independent basis.

96. The acts and practices of defendants as alleged herein constitute a contract, combination or conspiracy in restraint of commerce.

97. Globespan has suffered and will continue to suffer antitrust injury and damages to its business and property as a result of defendants' actions, including, without limitation, lost sales and profits, in amounts to be proven at trial.

b. Unlawful Patent Tying

98. TI and Stanford have entered into agreements that, standing alone and in combination with the conspiracy to engage in unlawful tying of patent licenses described above, constitute *per se* illegal violations of Section 1 of the Sherman Act, 15 U.S.C. § 1, or in the alternative constitute an unreasonable restraint of trade in violation of the statute because any procompetitive benefit of such agreements is outweighed by the anticompetitive effects of the agreements in each and all of the relevant markets.

99. TI and Stanford allegedly own patents claiming technologies that are necessary for compliance with the ADSL Standards and claim that any person who wants to develop and sell ADSL Systems must license all of these patents in order to avoid worldwide patent litigation against themselves and/or their customers.

100. TI and Stanford also allegedly own patents claiming technologies that are not necessary for ADSL Standards compliance.

101. Beginning in or before 1998, and continuing until the filing of this Complaint, TI and Stanford have conspired to refuse to license patents that claim technologies necessary for ADSL Standards compliance unless licensees also agree to license other TI and Stanford patents that claim technologies not needed for Standards compliance. Defendants' conspiratorial bundling of these patent licenses constitutes a *per se* illegal tie-in, in violation of

Section 1 of the Sherman Act, 15 U.S.C. § 1, or in the alternative constitutes an unreasonable restraint of trade in violation of the statute because any procompetitive benefit is outweighed by the anticompetitive effects of the unlawful tie.

102. At all times, TI and Stanford have had monopoly power and/or market power in the market for ADSL Standards-compliant technology and/or the market for defendants' patented ADSL Standards-compliant technology.

103. TI's and Stanford's monopoly power and/or market power in these markets was sufficient to impose demands that Globespan and other persons must purchase licenses for the "tied" patents that are not required for ADSL Standards compliance.

104. The actions of TI and Stanford in tying the availability of licenses under patents that claim technology necessary for ADSL Standards compliance together with licenses under other, nonessential patents that Globespan and, on information and belief, other actual and potential licensees do not use, do not infringe, and do not desire to license, is not justified by any legitimate procompetitive benefit and has substantial adverse effects on competition.

105. TI and Stanford have each committed overt acts in furtherance of the conspiracy alleged.

106. TI's and Stanford's actions have had the purpose and effect of (a) forcing Globespan and other persons to purchase unwanted licenses if they wanted to license patents essential for ADSL Standards compliance; (b) foreclosing a substantial amount of competition in the market for ADSL non-Standards technology; and (c) injuring and eliminating competition in the market for ADSL Systems.

107. As a result of this unlawful tying of patent licenses: (a) TI's competitors in the market for ADSL Systems, including Globespan, incurred increased costs that injured or

eliminated competition in that market; and (b) competition has been injured or eliminated in the markets for ADSL non-Standards technology and ADSL technology innovation.

c. Unreasonable Licensing Terms

108. TI and Stanford have entered into agreements restricting the terms of patent licenses granted by TI and/or that impose unreasonable licensing terms that, standing alone and in combination with the conspiracy described above, constitute *per se* violations of Sherman Act § 1, or in the alternative constitute an unreasonable restraint of trade in violation of the statute because any procompetitive benefit of such restrictions and/or terms is outweighed by their anticompetitive effects.

109. Among other things, defendants' restrictions and/or unreasonable licensing terms include, but are not limited to: (a) unreasonable royalties that are set at approximately the same level (with maximums and minimums) regardless of whether the potential licensee wants to license only one patent, a few, or the entire "portfolio" of patents claimed to be essential by defendants; (b) a requirement that the potential licensee provide defendants with a royalty-free cross license to all ADSL-related patents held by the potential licensee as a requirement to license any patent necessary for compliance with the ADSL Standards; and (c) refusal to provide "most-favored licensee" clauses to some potential licensees when TI has granted such clauses to other licensees.

d. Manipulation of the ADSL Standards

110. Also in furtherance of their conspiracy to restrain trade in the relevant markets, TI and Stanford conspired to manipulate the ADSL Standards so that such standards would unjustifiably incorporate the defendants' intellectual property. Defendants have engaged in a continuing series of overt acts in furtherance of this conspiracy, including, but not limited to:

(a) failing to disclose or selectively disclosing relevant patents and/or patent applications to ADSL standard-setting bodies; (b) prosecuting patents in bad faith so as to incorporate proposed features of the ADSL Standards into their pending applications; and (c) seeking to include unnecessary specifications in the ADSL Standards that had no purpose except to increase defendants' market power in the market for ADSL Standards-compliant technology and other relevant markets.

## COUNT II

### TI's Unlawful Tying in Violation of Sherman Act § 1

111. Globespan incorporates by reference the allegations contained in paragraphs 1 through 110 above.

112. TI alleges that it owns patents claiming technologies that are necessary for compliance with the ADSL Standards and that any person wishing to develop and sell ADSL Systems must license all of them in order to avoid worldwide legal action for patent infringement against themselves and/or their customers.

113. TI also allegedly owns patents claiming technologies that are not necessary for ADSL Standards compliance.

114. Beginning in or before 1998, and continuing until the filing of this Complaint, TI has refused to license patents that claim technologies necessary for ADSL Standards compliance unless potential and actual licensees also agreed to license other TI patents that claim technologies not essential for Standards compliance. TI's bundling of these patent licenses constitutes a *per se* illegal tie-in, in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1, or in the alternative constitutes an unreasonable restraint of trade in violation of the statute because any procompetitive benefit is outweighed by the anticompetitive effects of the unlawful tie.

115. At all times, TI had monopoly power and/or market power in the market for ADSL Standards-compliant technology and/or the market for defendants' patented ADSL Standards compliance technology.

116. TI's monopoly power and/or market power in these markets was sufficient to impose demands that Globespan and other persons purchase licenses for the "tied" patents that are not required for ADSL Standards compliance.

117. TI's actions in tying the availability of licenses under patents claiming technology necessary for ADSL Standards compliance together with licenses under other, nonessential patents that Globespan and, on information and belief, other actual and potential licensees do not use, do not infringe, and do not desire to license, is not justified by any legitimate procompetitive benefit and has substantial adverse effects on competition.

118. TI's actions have had the purpose and effect of (a) forcing Globespan and other persons to purchase unwanted licenses if they wished to license patents essential for ADSL Standards compliance; (b) foreclosing a substantial amount of competition in the market for ADSL non-Standards technology; and (c) injuring and eliminating competition in the market for ADSL Systems.

119. As a result of this unlawful tying of patent licenses: (a) TI's competitors in the market for ADSL Systems, including Globespan, incurred increased costs that injured or eliminated competition in that market; and (b) competition has been injured or eliminated in the markets for ADSL non-Standards technology and ADSL technology innovation.

120. As a further result of TI's unlawful tying in violation of Section 1, Globespan has been injured in its business and property.

### COUNT III

#### Monopolization of and Conspiracy to Monopolize Market for ADSL Non-Standards Technology in Violation of Sherman Act § 2

121. Plaintiff incorporates by reference paragraphs 1 through 120 above.

122. Defendants TI and Stanford have willfully engaged in a pattern of anticompetitive and exclusionary acts and practices, undertaken over the course of the last decade and continuing even today, whereby they have monopolized and conspired to monopolize the ADSL non-Standards technology market.

123. TI's and Stanford's anticompetitive conduct has included, but is not limited to: (a) bundling patents necessary for ADSL Standards compliance with other patents, thereby obtaining a decisive competitive advantage in the ADSL non-Standards technology market; (b) manipulating the process by which the ADSL Standards were established so that the resulting standards are covered by their patents; and (c) requiring rivals to license unnecessary patents in order to raise their costs.

124. TI and Stanford acted with an intent illegally to attain monopoly power in the market for ADSL non-Standards technology and to maintain such power once acquired, and their anticompetitive and exclusionary conduct has enabled them to do so, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

125. TI and Stanford have each committed one or more overt acts in furtherance of their conspiracy to monopolize the ADSL non-Standards technology market.

126. The purposes and effects of defendants' anticompetitive and exclusionary conduct have included, but are not limited to, the following:

- a) increases in royalties (or other costs) associated with the development, sale or use of ADSL technology and ADSL Systems;

- b) increases in the price, and reductions in the output and quality of ADSL Systems and ADSL non-Standards technology; and
- c) decreases in innovation related to ADSL technology.

127. As a further result of defendants' anticompetitive and exclusionary conduct, Globespan has suffered and will continue to suffer injury to its business and property.

#### COUNT IV

##### Monopolization of and Conspiracy to Monopolize Market for ADSL Standards-Compliant Technology in Violation of Sherman Act § 2

128. Plaintiff incorporates by reference paragraphs 1 through 127 above.

129. Defendants TI and Stanford have willfully engaged in a pattern of anticompetitive and exclusionary acts and practices, undertaken over the course of the last decade and continuing even today, whereby they have monopolized and conspired to monopolize the ADSL Standards-compliant technology market.

130. TI's and Stanford's anticompetitive conduct has included, but is not limited to: (a) bundling patents necessary for ADSL Standards compliance with other patents, thereby obtaining a decisive competitive advantage in the ADSL Standards technology market; (b) manipulating the process by which the ADSL Standards were established so that the resulting standards covered its patents; (c) seeking to exclude competing alternative technologies by preventing an alternative standard based on CAP technology from being adopted during the approval process for Issue 2 of the T1E1.413 standard; and (d) requiring rivals to license unnecessary patents in order to raise their costs.

131. TI and Stanford acted with an intent illegally to attain monopoly power in the market for ADSL Standards-compliant technology and to maintain such power once acquired, and their anticompetitive and exclusionary conduct has enabled them to do so, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.



132. TI and Stanford have each committed one or more overt acts in furtherance of their conspiracy to monopolize the ADSL Standards-compliant technology market.

133. The purposes and effects of defendants' anticompetitive and exclusionary conduct have included, but are not limited to, the following:

- a) increases in royalties (or other costs) associated with the development, sale or use of ADSL technology and ADSL Systems;
- b) increases in the price, and reductions in the output and quality of ADSL Systems and ADSL Standards-compliant technology; and
- c) decreases in innovation related to ADSL technology.

134. As a further result of defendants' anticompetitive and exclusionary conduct, Globespan has suffered and will continue to suffer injury to its business and property.

#### COUNT V

##### Monopolization of and Conspiracy to Monopolize Market for ADSL Technology in Violation of Sherman Act § 2

135. Plaintiff incorporates by reference paragraphs 1 through 134 above.

136. Defendants TI and Stanford have willfully engaged in a pattern of anticompetitive and exclusionary acts and practices, undertaken over the course of the last decade and continuing even today, whereby they have monopolized the ADSL Technology market.

137. TI's and Stanford's anticompetitive conduct has included, but is not limited to: (a) bundling patents necessary or essential for compliance with the ADSL Standards with other patents not required to produce a Standards-compliant ADSL product, thereby obtaining a competitive advantage in the ADSL Technology market; (b) manipulating the process by which the ADSL Standards were established so that the resulting standards are

covered by their patents; (c) tying patents essential or necessary for compliance with the ADSL Standards with patents not essential or necessary; and (d) requiring rivals to license unnecessary patents in order to raise their costs.

138. TI and Stanford acted with an intent illegally to attain monopoly power in the market for ADSL Technology and to maintain such power once acquired, and its illegal and anticompetitive conduct have enabled it do so, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

139. The threatened or actual anticompetitive effects of defendants' conduct include, but are not limited to, the following:

- a) increases in royalties (or other payments) associated with the development, sale or use of ADSL technology;
- b) increases in the price and/or reductions in the use or output of ADSL chipsets, as well as products, *e.g.*, ADSL modems, incorporating or using ADSL chipsets; and
- c) decreases in innovation related to ADSL technology.

140. Globespan has suffered and will continue to suffer antitrust injury and damages to its business and property as a result of defendants' actions alleged herein, including, without limitation, lost sales and profits, in amounts to be proven at trial.

## COUNT VI

### Attempted Monopolization of and Conspiracy to Attempt to Monopolize Market for ADSL Technology in Violation of Sherman Act § 2

141. Plaintiff incorporates by reference paragraphs 1 through 140 above.

142. Defendants TI and Stanford have willfully engaged in a pattern of anticompetitive and exclusionary acts and practices, undertaken over the course of the last decade and continuing even today, with a specific intent and in furtherance of a conspiracy to attempt to monopolize the ADSL Technology market.

143. Defendants' anticompetitive conduct has included, but is not limited to: (a) bundling patents necessary or essential for compliance with the ADSL Standards with other patents not necessary or essential, thereby obtaining a competitive advantage in the ADSL Technology market; (b) manipulating the process by which the ADSL Standards were established so that the resulting ADSL Standards are covered by their patents; (c) tying patents essential or necessary for compliance with the ADSL Standards with patents covering optional ADSL Technology; and (d) requiring rivals to license unnecessary patents in order to raise their costs.

144. Unless restrained, there is a dangerous probability that defendants will succeed in obtaining a monopoly in the ADSL Technology market, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

145. The threatened or actual anticompetitive effects of defendants' conduct include, but are not limited to, the following:

- a) increases in royalties (or other payments) associated with the development, sale, or use of ADSL technology;
- b) increases in the price and/or reductions in the use or output of ADSL chipsets, as well as products, *e.g.*, ADSL modems, incorporating or using ADSL chipsets; and
- c) decreases in innovation related to ADSL technology.

146. Globespan has suffered and will continue to suffer antitrust injury and damages to its business and property as a result of defendants' actions alleged herein, including, without limitation, lost sales and profits, in amounts to be proven at trial.

## COUNT VII

### Attempted Monopolization of and Conspiracy to Attempt to Monopolize Market for ADSL Systems in Violation of Sherman Act § 2

147. Plaintiff incorporates by reference paragraphs 1 through 146 above.

148. Defendants TI and Stanford have willfully engaged in a pattern of anticompetitive and exclusionary acts and practices described herein, undertaken over the course of the last decade and continuing even today, with a specific intent and in furtherance of a conspiracy to attempt to monopolize the ADSL Systems market.

149. TI's and Stanford's anticompetitive conduct has included, but is not limited to: (a) bundling patents necessary or essential for compliance with the ADSL Standards with other patents not necessary or essential, thereby obtaining a competitive advantage in the ADSL Systems market; (b) manipulating the process by which the ADSL Standards were established so that the resulting standards are covered by their patents; (c) tying patents essential or necessary for compliance with the ADSL Standards with patents covering ADSL non-Standards technologies and patents included in the ADSL non-Standards technology market; and (d) requiring rivals to license unnecessary patents in order to raise their costs.

150. Unless restrained, there is a dangerous probability that defendants will succeed in obtaining a monopoly in the ADSL Systems market, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

151. The threatened or actual anticompetitive effects of defendants' conduct include, but are not limited to, the following:

- a) increases in royalties (or other payments) associated with the development, sale, or use of ADSL technology;
- b) increases in the price and/or reductions in the use or output of ADSL Systems, as well as products, *e.g.*, ADSL modems, incorporating or using ADSL chipsets; and
- c) decreases in innovation related to ADSL technology.

152. Globespan has suffered and will continue to suffer antitrust injury and damages to its business and property as a result of defendants' attempted monopolization and

conspiracy to attempt to monopolize, including, without limitation, lost sales and profits, in amounts to be proven at trial.

## COUNT VIII

### Breach of Contract

153. Globespan incorporates by reference paragraphs 1 through 152 above.

154. As a condition of the adoption of the ADSL Standards, defendants agreed with ANSI and the ITU and other participants in the standards-setting process to offer licenses for their patents that were necessary or essential for compliance with the ADSL Standards on RAND Terms to any person wishing to obtain such licenses and agreed to negotiate any such licenses in good faith ("RAND Agreements").

155. Globespan is a party to and/or an intended and foreseeable third-party beneficiary of these RAND Agreements and is entitled to enforce the RAND Agreements.

156. Defendants have breached their RAND Agreements by failing to offer licenses for their patents that are necessary or essential to comply with the ADSL Standards, by refusing to grant such patent licenses on RAND Terms, and by failing to negotiate such licenses in good faith. Globespan further has reason to believe that defendants will continue to demand unreasonable and discriminatory terms and conditions that do not fulfill their obligations under the RAND Agreements.

157. If defendants do not perform their obligations under the RAND Agreements, Globespan will be irreparably harmed in that it will be deprived of a contractual benefit that defendants promised to provide.

158. Globespan is entitled to an order requiring defendants specifically to perform their obligations under their RAND Agreements, including the setting of RAND Terms by the Court.

159. As a result of defendants' breaches of their RAND Agreements, Globespan has been subjected to unreasonable actions by defendants that prevent Globespan from competing effectively in the market for ADSL Systems and has been injured because of defendants' unreasonable refusal to provide it with access to technology for compliance with ANSI Standards.

160. Also, as a direct result of Defendants' breaches of their RAND Agreements, Globespan has been forced to incur and will continue to incur additional, reasonably foreseeable, consequential damages, including attorneys' fees and other expenses in order to prosecute this action.

## COUNT IX

### Implied Covenant of Good Faith and Fair Dealing

161. Globespan incorporates by reference paragraphs 1 through 160 above.

162. As a condition of the adoption of the ADSL Standards, defendants entered into RAND Agreements.

163. Globespan is a party to and/or an intended and foreseeable third-party beneficiary of these RAND Agreements and is entitled to enforce the RAND Agreements. As a result, Globespan reasonably believed that defendants would offer licenses on RAND Terms.

164. Defendants have breached their obligation of good faith and fair dealing implied in the RAND Agreements by: (a) failing to offer licenses for their patents that are necessary or essential to comply with the ADSL Standards, (b) refusing to grant such patent licenses on RAND Terms, and (c) failing to negotiate such licenses in good faith. Globespan further has reason to believe that defendants will continue to demand unreasonable and discriminatory terms and conditions that do not fulfill their obligations to perform in good faith pursuant to the RAND Agreements.

165. Defendants have unreasonably, capriciously and in bad faith misused the discretion available to them under their contracts with the standards-setting bodies and their members to offer licenses of essential patents on RAND Terms with the intention of causing injury to Globespan's business.

166. As a result of defendants' breaches of their obligation to perform fairly and in good faith under the RAND Agreements, Globespan has been subjected to unreasonable actions by defendants that prevent Globespan from competing effectively in the market for Standards-compliant ADSL Systems and has been injured because of defendants' unreasonable refusal to provide it with access to technology necessary for compliance with ANSI Standards.

167. Also, as a direct result of defendants' breaches of their RAND Agreements, Globespan has been forced to incur and will continue to incur additional, reasonably foreseeable consequential damages, including attorneys' fees and other expenses in order to prosecute this action.

## COUNT X

### Promissory Estoppel

168. Globespan incorporates by reference paragraphs 1 through 167 above.

169. Defendants made clear and definite promises to ANSI and the ITU that they would license any of their patents that are necessary or essential to comply with the ADSL Standards on RAND Terms to any person, and that they would negotiate such licenses in good faith. Defendants made these promises with the knowledge and expectation that developers and sellers of Standards-compliant ADSL Systems would rely on such promises ("RAND Promises").

170. Globespan reasonably relied on defendants' RAND Promises to its substantial detriment by investing in and developing its business for Standards-compliant ADSL Systems with the expectation that defendants would abide by their RAND Promises.

171. Defendants have refused to license their patents that are necessary or essential to comply with the ADSL Standards on RAND Terms.

172. Globespan has been subjected to unreasonable actions by defendants that prevent Globespan from competing effectively in the market for Standards-compliant ADSL Systems, and it has been deprived of the benefits of the patent licenses promised by defendants. Globespan will continue to suffer hardship and injustice for so long as defendants continue to fail to abide by their RAND Promises.

173. Globespan is entitled to an order requiring the defendants specifically to abide by their RAND Promises, including the setting of RAND Terms by the Court.

174. As a result of defendants' failure to abide by their RAND Promises, Globespan has been forced to pay costs and expenses relating to the licensing negotiations with defendants and has been injured by defendants' failure to provide it with access to technology for compliance with the ANSI Standard.

175. Also, as a result of defendants' failure to abide by their RAND Promises, Globespan has been forced to incur and will continue to incur additional, reasonably foreseeable, consequential damages, including the costs of attorneys' fees and other expenses in order to prosecute this action.

## COUNT XI

### Tortious Interference with Prospective Economic Advantage

176. Globespan incorporates by reference paragraphs 1 through 175 above.



177. Globespan had a reasonable probability of deriving economic benefit from ongoing and prospective business relationships with third parties involving the sale of products, services and technology to those third parties.

178. Defendants had knowledge of Globespan's relationships and prospective business advantage.

179. Defendants knowingly and without justification or excuse interfered with Globespan's relationships with its customers and prospective customers, causing Globespan to lose certain customers and to incur economic loss in an amount to be determined at trial.

## COUNT XII

### Declaratory Judgment - Unenforceability of Patents (Patent Misuse)

180. Globespan incorporates by reference paragraphs 1 through 179 above.

181. The claims of the TI Patents and Stanford Patents are unenforceable because the conduct of TI and Stanford, acting singly and in concert, constitutes patent misuse.

182. Beginning in or before 1998, and continuing until the filing of this Complaint, TI and Stanford have refused to license to Globespan and other persons patents claiming technologies necessary for ADSL Standards compliance unless Globespan and the other persons also agreed to purchase additional licenses for other TI and Stanford patents claiming technologies not needed for ADSL Standards compliance.

183. At all relevant times, TI and Stanford have had market power in the market for ADSL Standards-compliant technology.

184. None of the misuse of the TI Patents or the Stanford Patents has been purged and its effects have not been dissipated.

185. An actual justiciable controversy appropriate for declaratory relief exists between Globespan and TI and Stanford.

186. Pursuant to 28 U.S.C. §§ 2201 and 2202, Globespan is entitled to a declaratory judgment that the TI Patents and the Stanford Patents are unenforceable.

### COUNT XIII

#### Declaratory Judgment - Unenforceability of Patents (Inequitable Conduct)

187. Globespan incorporates by reference paragraphs 1 through 186 above.

188. Certain TI Patents and Stanford Patents are unenforceable due to inequitable conduct by Amati and its employees or by Stanford and its employees before the PTO.

189. On information and belief, Amati employees John Cioffi, Jacky Chow, Peter Chow and Ronald Hunt falsely and with deceptive intent claimed to be the inventors of certain technology developed by employees of ECI Telecom, Ltd. ("ECI"), pursuant to a 1992 Research and Development Agreement between ECI and Amati. On information and belief, that technology is claimed in the '474 patent, the '322 patent and the '447 patent, none of which identifies any ECI employee as an inventor. By omitting, with deceptive intent, one or more true inventors of the technology claimed in the applications that resulted in the '474, '322 and '447 patents, Amati and its employees Cioffi, Jacky Chow, Peter Chow and Hunt engaged in inequitable conduct before the PTO that renders those patents unenforceable.

190. In connection with the prosecution of the application resulting in the '447 patent, John Cioffi and Peter Chow, with intent to mislead the PTO, failed to disclose to the PTO at least two publications that they co-authored -- (a) contribution T1E1.4/90-211, "Preliminary Feasibility Study of a Multi-Carrier Transmission System for the Proposed ADSL Data Service," dated December 12, 1990, to the T1E1.4 Working Group developing a standard for ADSL, and

(b) "A Loading Algorithm for the Concatenation of Coset Codes with Multichannel Modulation Methods," published in 1990 by the Institute of Electrical and Electronics Engineers ("IEEE"). In connection with the prosecution of the application resulting in the '447 patent, Cioffi and Peter Chow, with intent to mislead the PTO, failed to disclose "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come," authored by Amati co-employee John A.C. Bingham and published in 1990 in IEEE Communications Magazine. On information and belief, Cioffi and Peter Chow were aware of this Bingham publication during the prosecution of the application that resulted in the '447 patent. These publications should have been disclosed to the PTO in connection with the prosecution of the application resulting in the '447 patent. Cioffi and Peter Chow are identified as inventors of the technology claimed in the '447 patent, and those publications disclose information material to the patentability of that claimed technology. By intentionally failing to disclose these publications to the PTO in connection with the prosecution of the application resulting in the '447 patent, Cioffi and Peter Chow engaged in inequitable conduct that renders the '447 patent unenforceable.

191. In connection with the prosecution of the application resulting in the '731 patent, with intent to mislead the PTO, Cioffi failed to disclose to the PTO at least two publications that he authored or supervised -- (a) contribution T1E1.4/92-205, "Performance of Enhanced (6 Mbps) ADSL," dated December 1, 1992, to the T1E1.4 Working Group developing a standard for ADSL, and (b) a May 1993 Stanford University doctoral thesis, "Bandwidth Optimized Digital Transmission Techniques for Spectrally Shaped Channels with Impulse Noise." These publications should have been disclosed to the PTO in connection with the prosecution of the application resulting in the '731 patent. Cioffi is identified as the inventor of the technology claimed in the '731 patent, and these publications disclose information material to

the patentability of that claimed technology. By intentionally failing to disclose these publications to the PTO in connection with the prosecution of the application resulting in the '731 patent, Cioffi engaged in inequitable conduct that renders the '731 patent unenforceable.

192. In connection with the prosecution of the application resulting in the '290 patent, with intent to mislead the PTO, Cioffi failed to disclose to the PTO at least two publications that he co-authored or supervised -- (a) contribution T1E1.4/92-205, "Performance of Enhanced (6 Mbps) ADSL," dated December 1, 1992, to the T1E1.4 Working Group developing a standard for ADSL, and (b) a May 1993 Stanford University doctoral thesis, "Bandwidth Optimized Digital Transmission Techniques for Spectrally Shaped Channels with Impulse Noise." These publications should have been disclosed to the PTO in connection with the prosecution of the application resulting in the '290 patent. Cioffi is identified as the inventor of the technology claimed in the '290 patent, and these publications disclose information material to the patentability of that claimed technology. By intentionally failing to disclose these publications to the PTO in connection with the prosecution of the application resulting in the '290 patent, Cioffi engaged in inequitable conduct that renders the '290 patent unenforceable.

193. In connection with the prosecution of the application resulting in the '180 patent, Jacky Chow, with intent to mislead the PTO, failed to disclose to the PTO contribution T1E1.4/93-120, "Proposed Standard: Sections 6.6-6.10 & 7.6-7.10 Encoders, Modulators, Cyclic Prefices, DACs and Atialiasing Filters," authored by Amati employee John A.C. Bingham and dated May 10, 1993. On information and belief, Jacky Chow knew of this contribution at or about the time that it was published by the T1E1.4 Working Group. This publication should have been disclosed to the PTO in connection with the prosecution of the application that resulted in the '180 patent. Jacky Chow is identified as an inventor of the

technology claimed in the '180 patent, and contribution T1E1.4/93-120 discloses information material to the patentability of that claimed technology. By intentionally failing to disclose this publication to the PTO in connection with the prosecution of the application that resulted in the '180 patent, Jacky Chow engaged in inequitable conduct that renders the '180 patent unenforceable.

194. In connection with the prosecution of the application resulting in the '933 patent, with intent to mislead the PTO, Jacky Chow failed to disclose to the PTO contribution T1E1.4/93-120, "Proposed Standard: Sections 6.6-6.10 & 7.6-7.10 Encoders, Modulators, Cyclic Prefices, DACs and Antialiasing Filters," authored by Amati employee John A.C. Bingham and dated May 10, 1993. On information and belief, Jacky Chow knew of this contribution at or about the time that it was published by the T1E1.4 Working Group. This publication should have been disclosed to the PTO in connection with the prosecution of the application that resulted in the '933 patent. Jacky Chow is identified as an inventor of the technology claimed in the '933 patent, and contribution T1E1.4/93-120 discloses information material to the patentability of that claimed technology. By intentionally failing to disclose this publication to the PTO in connection with the prosecution of the application that resulted in the '933 patent, Jacky Chow engaged in inequitable conduct that renders the '933 patent unenforceable.

195. An actual justiciable controversy, appropriate for declaratory relief, exists between Globespan and TI and Stanford.

196. Pursuant to 28 U.S.C. §§ 2201 and 2202, Globespan is entitled to a declaratory judgment that certain TI Patents and Stanford Patents are unenforceable.

## COUNT XIV

### Declaratory Judgment - Invalidity of Patents

197. Globespan incorporates by reference paragraphs 1 through 196 above.
198. Certain claims of the TI Patents and the Stanford Patents are invalid under one or more of Sections 102, 103, 112 and other provisions of Title 35 of the United States Code.
199. An actual justiciable controversy appropriate for declaratory relief exists between Globespan and TI and Stanford.
200. Pursuant to 28 U.S.C. §§ 2201 and 2202, Globespan is entitled to a declaratory judgment that certain claims of the TI Patents and the Stanford Patents are invalid.

## COUNT XV

### Declaratory Judgment of Non-Infringement of Patents

201. Globespan incorporates by reference paragraphs 1 through 200 above.
202. If any TI Patent is not invalid or unenforceable, Globespan does not infringe certain claims of that TI Patent.
203. If any Stanford Patent is not invalid or unenforceable, Gloebspan does not infringe certain claims of that Stanford Patent.
204. An actual justiciable controversy appropriate for declaratory relief exists between Globespan and TI and Stanford.
205. Pursuant to 28 U.S.C. §§ 2201 and 2202, Globespan is entitled to a declaratory judgment that it does not infringe certain claims of the TI Patents.
206. Pursuant to 28 U.S.C. §§ 2201 and 2202, Globespan is entitled to a declaratory judgment that it does not infringe certain claims of the Stanford Patents.

### **RELIEF REQUESTED**

WHEREFORE, Globespan asks that the Court enter a judgment:

- A. Finding that TI and Stanford have violated the federal antitrust laws;
- B. Permanently enjoining TI and Stanford from engaging in the anticompetitive practices alleged herein in violation of Sections 1 and 2 of the Sherman Act;
- C. For actual and treble damages for TI's and Stanford's violations of the federal antitrust laws;
- D. Declaring that the claims of all of TI's Patents and Stanford's Patents that would have been included in a bundled license to Globespan are invalid, unenforceable, void, and/or not infringed by Globespan;
- E. Permanently enjoining TI from pursuing patent litigation against Globespan or its customers based on the TI Patents;
- F. Permanently enjoining TI and Stanford from pursuing patent litigation against Globespan or its customers based on the Stanford Patents;
- G. Finding this case to be an exceptional case pursuant to 35 U.S.C. § 285 or finding that defendants acted in bad faith and awarding Globespan its costs and expenses, including reasonable attorneys' fees;
- H. Ordering that TI and Stanford specifically perform their contractual obligations to license to Globespan the individual TI Patents and Stanford Patents on reasonable terms and conditions that are demonstrably free of any unfair discrimination, to the extent such patents are valid, enforceable and infringed by Globespan and essential to the Standards, and that they be estopped from refusing to do so;
- I. For damages against TI and Stanford for breach of contract, breach of the implied covenant of good faith and fair dealing, and/or promissory estoppel;

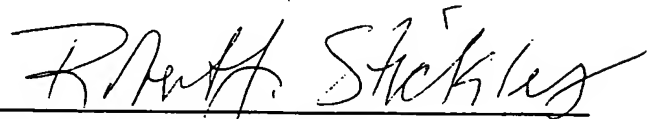
J. For damages, punitive damages and injunctive relief against TI and Stanford for tortious interference with prospective economic relations; and

K. Awarding Globespan such other and further relief as the Court may deem just and proper.

**JURY DEMAND**

GlobespanVirata respectfully demands a jury trial pursuant to Rule 38(b) of the Federal Rules of Civil Procedure on all issues so triable.

Respectfully submitted,



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